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<p>(21) International Application Number: PCT/US99/12851</p> <p>(22) International Filing Date: 8 June 1999 (08.06.99)</p> <p>(30) Priority Data: 60/088,431 8 June 1998 (08.06.98) US</p> <p>(71) Applicant: OSIRIS THERAPEUTICS, INC. [US/US]; 2001 Aliceanna Street, Baltimore, MD 21231-2001 (US).</p> <p>(72) Inventors: THIEDE, Mark, A.; 319 Pond View Court, Forest Hill, MD 21050 (US). PITTENGER, Mark, F.; 108 Southway, Severna Park, MD 21146 (US). MBALAVIELE, Gabriel; Apartment 1G, 8488 Greystone Lane, Columbia, MD 21045 (US).</p> <p>(74) Agents: OLSTEIN, Elliot, M. et al.; Carella, Byrne, Bain, Gilfillan, Cecchi, Stewart & Olstein, 6 Becker Farm Road, Roseland, NJ 07068 (US).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>Without international search report and to be republished upon receipt of that report.</i></p>
<p>(54) Title: <i>IN VITRO</i> MAINTENANCE OF HEMATOPOIETIC STEM CELLS</p>		
<p>(57) Abstract</p> <p>The present invention is directed to human mesenchymal stem cells isolated from a tissue specimen, such as marrow cells, and to the method of co-culturing isolated mesenchymal stem cells and/or mesenchymal stem cell-derived adipocytes with hematopoietic progenitor cells such that the hematopoietic stem cells retain their phenotype.</p>		

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